UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/174,551	10/19/1998	MASAKI WATANABE	043034-0135	5816

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ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 07-01)

Office Action Summary	Application No. 09/174,551	Applicant(s) Masaki Watanabe
	Examiner King Y. Poon	Art Unit 2624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ___*3*___ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on __*1/22, 2002 and 2/22/2002*__

2a) ☐ This action is **FINAL.**   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *7-15 and 21-24* _____ is/are pending in the applica

   4a) Of the above, claim(s) _____ is/are withdrawn from considera

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *7-15 and 21-24* _____ is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claims _____ are subject to restriction and/or election requirem

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

11) ☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐disapproved.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

   a)☒ All b) ☐ Some* c) ☐None of:

   1. ☒ Certified copies of the priority documents have been received.

   2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

   3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

   *See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

15) ☐ Notice of References Cited (PTO-892)

16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____

18) ☐ Interview Summary (PTO-413) Paper No(s). _____

19) ☐ Notice of Informal Patent Application (PTO-152)

20) ☐ Other:

DETAILED ACTION

Continued Prosecution Application

1.   The request filed on 2/22/2002 for a Continued Prosecution Application (CPA) under 37

CFR 1.53(d) based on parent Application No. 09/174551 is acceptable and a CPA has been

established. An action on the CPA follows.

Specification

2.   The title of the invention is not descriptive. A new title is required that is clearly

indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 102

3.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless --
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use
> or on sale in this country, more than one year prior to the date of application for patent in the United States.

4.   Claims 7-15, 21-24 are rejected under 35 U.S.C. 102(b) as being anticipated by Nagasaka

(U.S. Patent # 5511156).

Regarding claim 7: Nagasaka teaches a network system (fig. 2) composed of a print

server computer (6a, fig. 2, having server process 211, column 5, lines 40-50) and a plurality of

client computers, (6a, 6b, 6c, fig. 2, having a client process, column 5, lines 40-50) wherein each

of the print server computer and the plurality of client computers has a print data expander

(rasterizer 212, column 7, lines 5-15) for expanding print data to bit-map data, (picture elements,

column 7 line 10, column 13, line 5) in parallel, (column 6, lines 25-30) wherein each of the

plurality of client computers comprises: a page divider (216 of column 6, lines 59-67, column 22,

lines 40-45) for dividing generated print data for each page into a plurality of bands, (graphic

area, column 24 table 3, fig. 27) wherein the generated print data is generated by an application;

(column 6, lines 1-15) and a transfer controller (210, column 6, lines 65-67, column 7, lines 1-5)

for transferring a sequentially selected (see the group are arranged in a sequence of 1, 2, 3, . . . ,

N to be selected by client process 210, column 23, lines 45-67, column 24, line 1-25, and table 3)

one of the bands to an available (usable, column 7 line 51, fig, 6, fig. 7) one of print data

expanders of the print server computer (column 6, lines 25-30) and other client computers, (212

of other computers, column 7, lines 1-10) wherein expanded bit-map band data by the print data

expander of each client computer is transferred to the print server computer, (column 7, lines 5-

27) and the print server computer comprises: a combiner (220 of column 7, lines 24-27) for

combining bit-map band data expanded by the print data expander of the print server computer

and the expanded bit-map band data received from at least one of the client computers to produce

bit-map data corresponding to the generated print data.

Regarding claim 8: Nagasaka teaches wherein the transfer controller (210, column 6,

lines 65-67, column 7, lines 1-5) selects one band from the bands in sequence (see the group are

arranged in a sequence of 1, 2, 3, ... , N to be selected by client process 210, column 24, line 10-25, and table 3) and further selects an available one of the print data expanders of the print server computer and the other client computers by checking a print data expanding process status (column 7, lines 50-67, fig. 7, column 9) received from each of the print server computer and the other client computers, column 11, lines 33-50) and then transfers a selected band to a selected print data expander. (Column 6, lines 59-67, column 7, lines 1-5)

Regarding claims 9, 10: Nagasaka teaches wherein, when receiving a band (partial files, abstract) from another print data expander, (see rasterizer/expander generates a print request, (abstract) which distribute the PDL translation processing to all computers, column 6, line 25-29) each of the plurality of print data expanders expands the received band to bit-map band data, (column 7, lines 1-25)sets a print data expanding process status of a print data expander of its own to unavailable (error code, column 8, lines 63-64, fig. 7) while expanding the received band, and resets the print data expanding process status to available when the expanding process of the received band has been completed, (normal end code, column 8, line 63, fig. 7) wherein the print data expanding process status is used to determine whether a corresponding print data expander is available. (29, fig. 7)

Regarding claim 11: Nagasaka teaches wherein the page divider divides the generated print data for each page into the bands which are numbered from top of a page in sequence. (Fig. 27, graphic form group, table 3 of column 24 teaches to number the groups in the sequence of 1, 2, ... , N)

Regarding claim 12: Nagasaka teaches wherein the combiner (220 of column 7, lines 24-27) receives the bit-map band data expanded by the print data expander of the print server computer (6a, column 6, line 19) and the expanded bit-map band data received from said at least one of the client (6b, 6c, column 6 lines 20-30) computers, (column 7, lines 15-27, column 6, lines 25-30) determines whether the bit-map band data are received in original sequence of the bands, (see 220 arrange and the received print element groups according to table 3, column 24 line 10-25, and check conversion status of column 25 line 5-20) rearranges (column 25, lines 1-5) the bit-map band data in the original sequence when a sequence of the bit-map band data is not identical to the original sequence, (one group is converted before the other, column 25 line 5-20) and reproduces (synthesize, column 7, line 25) the bit-map data corresponding to the generated print data.

Regarding claim 13: Claim 13 is claiming method steps of the apparatus disclosed in claim 7. Please see discussion on claim 7.

Regarding claim 14: Nagasaka teaches at the client computer, selecting one from the sequential bands in sequence; (see the respective portion of the divided code, (group) are selected to be transmitted to a respective interpreter of a computer, column 6 line 65-67, column 7 line 1-3) selecting an available one of the print server computer and the client computer by checking print data expanding process statuses thereof; (fig. 6, fig. 7) transferring a selected band to a selected computer; (column 7, lines 42-59; the respective portion of the divided code, (group) are selected to be transmitted to a respective interpreter of a computer, column 6 line 65-67, column

7 line 1-3) expanding a client-received band to bit-map band data; (column 7, lines 5-15) and setting a print data expanding client process status to unavailable (error code, column 8, lines 63-64, fig. 7) while expanding the client-received band and resetting the print data expanding client process status to available (normal end code, column 8, line 63, fig. 7) when a print data expanding process of the client-received band has been completed, and at the print server computer, expanding a server-received band to bit-map band data; (column 7, lines 5-15) and setting a print data expanding server process status to unavailable (error code, column 8, lines 63, fig. 7) while expanding the client-received band and resetting the print data expanding server process status to available (normal end code, column 8, line 63, fig. 7) when a print data expanding process of the client-received band has been completed.

Regarding claim 15: Nagasaka teaches wherein the combiner (220 of column 7, lines 24-27) receives the bit-map band data expanded by the print data expander of the print server computer (6a, column 6, line 19) and the expanded bit-map band data received from the at least one of the client (6b, 6c, column 6 lines 20-30) computers, (column 7, lines 15-27, column 6, lines 25-30) determines whether the bit-map band data are received in original sequence of the bands, (see 220 arrange and the received print element groups according to table 3, column 24 line 10-25, and check conversion status of column 25 line 5-20) rearranges (column 25, lines 1-5) the bit-map band data in the original sequence when a sequence of the bit-map band data is not identical to the original sequence, (one group is converted before the other, column 25 line 5-20)

and reproduces (synthesize, column 7, line 25) the bit-map data corresponding to the generated

print data.

Regarding claim 21: Nagasaka teaches a network system (fig. 2) comprising a print server

computer (6a, fig. 2, having server process 211, column 5, lines 40-50) and a plurality of client

computers, (6a, 6b, 6c, fig. 2, having a client process, column 5, lines 40-50) wherein each of the

plurality of client computers comprises: a first print data expander (rasterizer 212, of the client

computers, column 7, lines 5-15) for expanding print data to bit-map data; (picture elements,

column 7, line10) a page divider (216 of column 6, lines 59-67, column 22, lines 40-45) for

dividing generated print data for each page into a plurality of bands, (graphic area, column 24,

table 3, fig. 27) wherein the generated print data is generated by an application; (column 6, lines

1-15) and a transfer controller (210, column 6, lines 65-67, column 7, lines 1-5) for transferring

a sequentially selected (see the group are arranged in a sequence of 1, 2, 3, . . . , N to be selected

by client process 210, column 23, lines 45-67, column 24, line 1-25, and table 3) one of the

bands to an available (usable, column 7 line 51, fig, 6, fig. 7) one of print data expanders of the

print server computer (column 6, lines 25-30) and other client computers, (212 of other

computers, column 7, lines 1-10) wherein expanded bit-map band data by the print data expander

of each client computer is transferred to the print server computer, (column 7, lines 5-27) the

print server computer comprising: a second print data expander (rasterizer 212, of the computer

6a, column 7, lines 5-15) for expanding print data received from at least one of the client

computers to bit-map band data in parallel with the first print data expander; (column 6, lines 25-

30) a combiner (220 of column 7, lines 24-27) for combining bit-map band data expanded by the print data expander of the print server computer and the expanded bit-map band data received from at least one of the client computers to produce bit-map data corresponding to the generated print data.

Regarding claim 22: Nagasaka teaches a client computer (6a, fig. 2, having a client process, column 5, lines 40-50) in a network system (fig. 2) comprising a print server computer (6a, fig. 2, having server process 211, column 5, lines 40-50, for sending print data to a printer, column 7, lines 25-35) and a plurality of client computers, (6b, 6c, fig. 2) the client computer comprising: a print data expander (rasterizer 212, column 7, lines 5-15) for expanding print data to bit-map data; (picture elements, column 7, line 10) a page divider (216 of column 6, lines 59-67, column 22, lines 40-45) for dividing generated print data for each page into a plurality of bands, (graphic area, column 24 table 3, fig. 27) wherein the generated print data is generated by an application; (column 6, lines 1-15) and a transfer controller (210, column 6, lines 65-67, column 7, lines 1-5) for transferring a sequentially selected (see the group are arranged in a sequence of 1, 2, 3, ..., N to be selected by client process 210, column 23, lines 45-67, column 24, line 1-25, and table 3) one of the bands to an available (usable, column 7 line 51, fig, 6, fig. 7) one of print data expanders of the print server computer (column 6, lines 25-30) and other client computers, (212 of other computers, column 7, lines 1-10) wherein expanded bit-map band data by the print data expander of each client computer is transferred to the print server computer, (column 7, lines 5-27) wherein the print server computer combines (column 7, lines

24-27) bit-map band data expanded by the printer server computer and the expanded bit-map

band data received from at least one of the client computers to produce bit-map data

corresponding to the generated print date.

Regarding claim23, and 24: Claims 23, 24 are claiming program steps of the apparatus

disclosed in claims 21, 22. Please see discussion on claims 21, 22.

Response to Arguments

5.   Applicant's arguments filed 2/5/2002 have been fully considered but they are not

persuasive.

With respect to applicant argument that "Nagasaka fails to teach how the divided areas

are expanded in the original sequence" has been considered.

In reply: Nagasaka teaches to arrange the divided area (column 6, lines 60-67) into

sequential group, indexed form 1 to N, (Column 24, lines 1-30) and sequentially selected (select

from the sequence 1-N) one of a group to be expanded by the expander.

Conclusion

6.   Any inquiry concerning this communication or earlier communications from the examiner

should be directed to King Y. Poon whose telephone number is (703) 305-0892

April 25, 2002

GABRIEL GARCIA
PRIMARY EXAMINER